

CLAIMS

1. A steering and suspension system having a kingpin capable of being fixed relative to the vehicle chassis, and a shaft rotatable on the kingpin axis that is capable of being
5 attached to a steering system.
2. A steering and suspension system as claimed in claim 1, which includes a component capable of attachment to a wheel via a stub axle or other means, and also connectable to the rotatable shaft in such a manner that it can move in a similar vertical position to the kingpin axis, the stub axle being oriented substantially perpendicular to the
10 longitudinal axis of the kingpin.
3. A steering and suspension system as claimed in claim 2, and further including a shock absorber.
4. An independent steering-suspension system including a kingpin capable of being fixed relative to a vehicle chassis, a first member rotatable about the axis of the kingpin, a second member capable of being secured to the first member so that it is
15 rotatable relative to the first member about an axis and also rotatable about the axis of the kingpin, a stub axle capable of being secured to the second member, a third member rotatable about the axis of the kingpin, whereby in use the independent steering-suspension system substantially eliminates toe and bump-steer.
- 20 5. A steering and suspension system as claimed in claim 4, wherein the second member is capable of being secured to the first member so that it is rotatable relative to the first member about an axis which is normal to the axis of the kingpin.
6. An independent steering and suspension system as claimed in claim 5, which also includes a fourth member having at least one of a spring and damping element and
25 capable of being secured to the second and third members and preferably rotatable relative to the second and third members about axes normal to the axis of the kingpin and rotatable about the axis of the kingpin, and linkage means capable of transferring the steering effort to the first, second, third and fourth members as rotation about the kingpin axis, thereby providing steering action.

7. A vehicle having an independent steering and suspension system as claimed in claim 5, as the front suspension/steering system of the vehicle.
8. A vehicle as claimed in claim 7, wherein the vehicle is a go-cart or ATV.

US 4,000,000
Patented Apr. 11, 1973
Inventor: [illegible]
Attorney: [illegible]